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The Causal Influence of Student Activity Participation and Learning Outcomes on Fulfillment of Student Academic Goals

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Abstract

The purpose of this research was to examine the direct and indirect causal influence of activity participation and learning outcomes, according to the National Qualifications Framework for Higher Education, on fulfillment of academic goals by international university students. Data were collected by using a questionnaire from 315 international university students. The data showed that the research conceptual framework and the empirical data were consistent with the rigorous conditions nominated. The findings showed that participation in student activities had a direct influence on the National Qualifications Framework for Higher Education learning outcomes, while the learning outcomes had a direct influence on fulfillment of students' academic goals. Recommendations were made, as well as suggestions for future research.

Keywords: *Student participation, National Qualifications Framework, academic goals*

Introduction

The promulgation of the 1999 National Education Act, amended (No. 2) in 2002 and (No. 3) in 2010, had an impact on education reform in Thailand at all levels, and was responsible for changes in the public administration system. A heavy emphasis was placed on curriculum improvement and changing teaching methods to develop students' thinking and problem-solving skills, as well as the development of Thai academic values and culture. Tertiary institutional standards were raised by this law, which also allowed public educational institutions to operate more independently and develop their management systems more flexibly. While providing them with academic freedom, it maintained supervision by the Council of Educational Institutions according to the laws governing the establishment of such educational institutions.

The Act included a Standard Qualification Framework and guidelines for compliance with the National Qualifications Framework for Higher Education. The Ministry specified learning outcomes for higher education in Thailand, namely, that learning includes behavioral changes that students develop based on experiences gained during their course of study. Learning outcomes were expected from graduates in at least five areas: ethics and morals; knowledge; cognitive skills; interpersonal skills and responsibility; and numerical analysis, communication, and information technology skills (Office of the National Education Commission, 2009). Insisting that higher educational institutions achieve these qualities would increase society's confidence in graduates' qualifications after completion of their studies (Inghamarathon & Phokaisawan, 2019). These learning outcomes are intended to become integral parts of a student's life, and are essential to their development as well-rounded adults.

Extra-curricular activities provide opportunities for students to develop their decision-making abilities, improve their personalities, and acquire skills in becoming a leader and a good follower. Such student activities must set clear and concise objectives for the activities so as to optimize their usefulness (Seenuansung, 2016). Four categories of student activities were specified, namely; sports activities, activities for preserving arts and culture, academic activities, and service activities. Participation in service to others encourages students to have a broader vision and practical experiences in job creation, and enhances societal welfare through recognition of the need to sacrifice for the common good and build a readiness for future occupations (Nhusawi, 2010). These goals are accomplished by encouraging students to carry out various activities promoting national social development with quality, efficiency, and effectiveness. This enables students to grow in intelligence and thinking ability in a safe environment, developing good attitudes, values, decision-making ability

and emotional control. By learning to be responsible to themselves and to the surrounding society, they may become good followers and leaders who are respected by those around them and can work with others successfully (Thoumthongthawin, 2009).

Several past researchers have studied student participation in activities and learning outcomes specified by the National Qualifications Framework for Higher Education. However, there is a lack of information on the influence of student participation on achievement of these learning outcomes and on fulfillment of student academic goals. Therefore, the focus of this research was to study the causal influence of student activity participation (sports, activities for preserving arts and culture, academic activities, and service activities) on the five previously mentioned learning outcomes (ethics and morals, knowledge, cognitive skills, interpersonal skills and responsibility, numerical analysis, communication, and information technology skills). It also examined the fulfillment of the academic goals of a selected group of international university students. This study's findings may be used by administrators and those involved in planning, revising, improving, and suggesting guidelines for developing student activities that promote these learning outcomes. They may also assist student efforts to fulfill their academic goals by motivating them to develop these essential skills and achieve their potential, both in their professional careers and in their personal lives in the future.

Objectives of the Research Study

To analyze the direct and indirect causal influences of activity participation and learning outcomes (according to the National Qualifications Framework for Higher Education) on fulfillment of student academic goals in a selected group of international university students.

Research Hypothesis

1. Participation in student activities has a direct influence on the fulfillment of student academic goals of international university students.
2. Participation in student activities has a direct influence on the learning outcomes specified by the National Qualifications Framework for Higher Education.
3. These learning outcomes have a direct influence on the fulfillment of the academic goals of international university students.
4. Participation in student activities has an indirect influence, through the transmission of learning outcomes, on fulfillment of the academic goals of international university students.

Literature Review

Participation in Student Activities

Phanuegrum (2014) defined student activities as the events jointly organized by students and educational institutions that meet student needs and interests. Activities must be suitable, useful, and helpful in creating hands-on experiences for students in addition to regular classroom learning in order to develop graduates who are complete, possessing academic learning, professional training, physical health, and life skills. The activities must be supported by the educational institution or extracurricular activities organized by students to enhance their ability to understand themselves and society better. The Higher Education Commission established Student Activity Standards in 1998 as guidelines for organizing beneficial and good quality activities to meet student needs. These activities are divided into four categories as follows: a) Sports Activities (SA1), activities aimed at developing students physically and mentally, so that they will have strong bodies and learn good sportsmanship; b) Arts and Culture Preservation Activities (SA2) that are aimed at enhancing students' knowledge and experiences in the areas of arts and culture; c) Academic Activities (SA3), which are extracurricular activities that increase students' academic knowledge and experience; and d) Service Activities (SA4) conducted by students to help others or to build permanent public or community facilities that will improve the local residents' quality of life. All of these activities are part of an educational process that the university provides to allow students to get to know each other better. They also allow student to discuss and consult about how to carry out these beneficial activities, and a teacher is

available to help supervise and give advice. This strategy is used to facilitate the effective organization of student activities, and to ensure that experience is gained from them which are necessary and useful for their future contribution to society. Modern societies demand skillful graduates who are well-trained, with academic knowledge, professional and life skills, otherwise graduates are not considered well-trained (Sukomol, 2000).

Learning Outcomes According to the National Qualification Framework for Higher Education

The National Qualification Framework for Higher Education defines the expected learning outcomes of graduates (Office of the National Education Commission, 2009; Inghamarathon & Phokaisawan, 2019). They are expected to have skills in at least these five areas as follows: (a) moral and ethical aspects (TQF1)—being able to deal with moral, ethical and professional issues using the basic values of discretion, empathy, and professional ethics; this includes behaviors such as discipline, responsibility, honesty, sacrifice, being a good role model, understanding others and the world, etc.; (b) knowledge (TQF2)—a wide and systematic knowledge of the principles and theories in one's field. For professional courses, there should be an advancement of specific knowledge in the field, and an awareness of current research related to problem-solving and knowledge enhancement. For professional courses that focus on gaining practical experience, it is important to be aware of customs, rules, and regulations that change according to the situation; (c) cognitive skills (TQF3)—being able to find facts, understand them, and evaluate information, new ideas, and evidence from a variety of sources. This information may then be used to work on their own, study relatively complex problems, and suggest creative solutions by taking into account theoretical knowledge, practical experience, and the impact of decisions. These skills and a thorough understanding of academic and professional subject matter may be applied to routine practices and to find new and appropriate ways to solve problems; (d) interpersonal skills and responsibility (TQF4)—contribute to and facilitate creative solutions to problems that arise within a group in which one is a leader or a member. This includes being able to show leadership in unclear situations that require innovative solutions, taking the initiative to analyze problems appropriately individually or in a group, and being responsible for continuous learning, as well as personal and professional development; and (e) numerical analysis, communication, and information technology skills (TQF5)—being able to study and understand the relevant issues, being able to choose and appropriately apply relevant statistical or mathematical techniques in education, to conduct research and suggest solutions to problems, being able to use information technology skills to collect, process, interpret and present information, being able to communicate effectively in both speaking and writing, and being able to choose a style of presentation that is suitable for different groups of people.

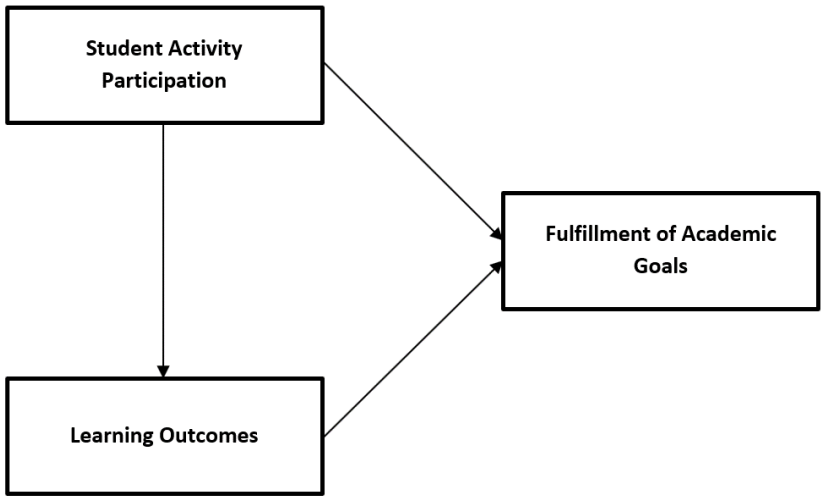
Fulfillment of Students' Academic Goals

Fulfillment of student academic goals refers to the level of individual expectations that are achieved by taking courses, studying in one's chosen major, or applying knowledge, skills, and experience based on student life in a higher educational institution (Petcharak et al., 2012; Kerdnaimongkol et al., 2013). Fulfillment of student goals also refers to the knowledge gained or skills developed by educational institutions in other environments that enable students to succeed in their study programs by relying on their unique individual abilities (Research Committee of Ramkhamhaeng University, 2013). For students to be successful in their studies, many factors are involved, which include the students themselves, their environment, teachers, and the institution's learning atmosphere. According to Charungdechakul (2011), graduation means completing the number of credits according to the curriculum and that have been approved by the University Council. Graduation may be within the time specified by the program, or more time may be taken than that specified for the course. Sawatdipong (2003) gave the meaning of academic achievement as the knowledge gained or skills that are developed in learning various subjects. Achievement is usually determined by the performance score or from both the knowledge and skills developed. Achievement

in learning, which is generally measured for that purpose, must rely on the cooperation of all parties involved in this matter.

Participation in student activities and the learning outcomes established in the National Qualification Framework for Higher Education have been the focus of past studies. Therefore, the present researchers were interested in examining the influence and relationships among the variables. Hence, the conceptual framework adopted in this research consisted of three variables: Participation in student activities (sports, activities for preserving arts and culture, academic activities, and service), the specificed learning outcomes (ethics and morals, knowledge, cognitive skills, interpersonal skills and responsibility, and numerical analysis, communication, and information technology skills), and fulfillment of student academic goals among selected international university students. Details are shown in Figure 1.

Figure 1 *The Conceptual Framework Used in the Study*



Research Methodology

Population and Sample

The population used in this study was 918 Asia-Pacific International University students in Muak Lek District, Saraburi Province (Office of the Registrar and Student Admissions, 2021). A conditional sampling method was used followed by data analysis, using structural equations. Hair et al. (2014) indicated that a sample size of 200 or more would be adequate. Kline (2011) stated that the sample size should be at least 200 or five times the number of the questions. There were 10 observable variables, and 48 survey questions were developed to measure these variables. Hence, the sample size should not be less than 240 (48 questions x 5). From the data collected, it was found that a total of 315 respondents answered all the questions. Therefore, the sample size satisfied the data analysis conditions specified for structural equations.

Research Tools

The researchers looked at other studies related to student participation, learning outcomes, and fulfillment of the academic goals of international university students. Then a questionnaire was developed with open-ended and closed questions divided into three parts as follows:

Part 1: Questions were about general information relating to the students. This involved a checklist of seven questions, and the student chose the answer that best matched their circumstances. The details of the data collected was as follows: Nominal scale data including gender, Faculty of study, Program of study, and ethnicity. Ordinal scale data included age, year of study, and cumulative grade point average.

Part 2: Organized in two sections as follows—Section 1 contained 20 questions about participation in student activities that were developed and adapted from past research, namely,

Rubama et al. (2019) and Rungruengkulwanich (2020). Section 2 had 23 questions about learning outcomes that were developed and adapted from previous studies (Kheewwat et al., 2015; Intaranongpai & Kotchakot, 2017). Part 2 of the questionnaire consisted of closed-ended questions that used a Likert scale. Measurements were on an Interval scale with five levels: Level 5–*Most Strongly Agree*, Level 4–*Strongly Agree*, Level 3–*Moderately Agree*, Level 2–*Slightly Agree*, and Level 1–*Minimally Agree*.

Part 3: Questions were about the fulfillment of the academic goals of international university students, which were developed and adapted from the definitions provided and past research of Petcharak et al. (2012) and Kerdnaimongkol et al. (2013). There were five closed questions. The Likert scale used involved five interval scales: Level 5–*Highest Fulfillment*, Level 4–*High Fulfillment*, Level 3–*Moderate Fulfillment*, Level 2–*Low Fulfillment*, and Level 1–*Lowest Fulfillment*.

Tool Quality Inspection

The researchers assessed the tools used in this research by investigating their validity and reliability in the following manner.

1. Content Validity Check: The researchers used a questionnaire to check the consistency between the questions and the desired objectives. The Index of Item Objective Congruence (IOC) technique was used with three experts. The results of the examination revealed that the IOC was between .67 and 1.00. To meet acceptable criteria, Rovinelli and Hambleton (1977) said that the IOC Index value should be at .50 or higher.

2. The reliability of the questionnaire was checked by using Cronbach's alpha coefficient analysis as follows: (a) Before data collection, 30 questionnaires were used after the IOC was checked with a sample that was similar to the sample group to be studied, and (b) then the questionnaires were collected from a sample group of 315 international university students. The reliability of the questionnaire items stood between .82 and .87. Cho and Kim (2015) indicated that if the reliability value of the questionnaire was greater than .70, it showed that the questionnaire had content validity and an acceptable level of reliability.

Data Collection Method

The data were collected by using a simple sampling method. The respondents to the questionnaire were students studying at an international university who were involved in student activities. Since the respondents had experience participating in activities and were directly involved in the measurement of learning outcomes, they were able to answer the questions accurately and straight to the point. The data collector informed the respondents of their rights. All information of the respondents was kept confidential and was not disclosed to the public. The data were analyzed as a whole; the data analysis, research reporting, and discussion of results focused on academic concerns.

Data Analysis

Descriptive statistics consisting of frequency, percentage, mean, standard deviation, and inferential statistics were used to outline respondent characteristics. As for hypothesis testing, first order Confirmatory Factor Analysis (CFA) was used; this was followed by analysis of the second-order latent variables involving participation in student activities and learning outcomes. The criteria used to determine the contribution of a variable consisted of the following indicators: Relative chi-square (χ^2/df) is less than 2.00; the *p*-value must be statistically insignificant or less than .05; the Comparative Fit Index (CFI) must be greater than .97; consistency of comparison from Tucker-Lewis Index (TLI) is greater than or equal to .95; the Root Mean Square Error of Approximation (RMSEA) is less than or equal to .05; and the Root Mean Residual (RMR) is less than .05 (Choi & Seltzer, 2010; Hair et al. 2014). To analyze the causal relationship, structural equation model analysis was used to test the coherence of the research model with empirical data based on the standard criteria. These criteria were that the relative chi-square (χ^2/df) was less than 4.00, the *p*-value must be statistically insignificant or not lower than .05, Goodness-of-Fit index (GFI) value was greater than .90, Adjusted Goodness-of-Fit index

(AGFI) was greater than .90, the Root Mean Square Error of Approximation (RMSEA) was less than or equal to .05, the Normed Fit Index (NFI) was greater than or equal to .90, the Incremental Fit Index (IFI) was greater than or equal to .90, and the Comparative Fit Index (CFI) was greater than or equal to .90 (Hair et al., 2006; Kline, 2016).

Summary of Research Results

Descriptive Statistics

1. Analysis of the general data—The results showed that the international university students who responded to the questionnaire consisted of 174 (55.2%) females, 154 (48.9%) of whom were aged 19 to 21, and 101 (32.1%) were in their senior year of study. A total of 117 students (37.1%) had a cumulative grade point average of between 3.01 and 3.50, 75 students (23.8%) majored in English, 174 students (55.2%) were in international programs, and 169 (53.7%) were Thai nationals.

2. Analysis of the level of participation in student activities—The results showed that the students had a high average level of participation in student activities ($\bar{x}$ = 3.82, *SD* = 0.53). When considering participation in student activities per variable, it was found that Service Activities had the highest mean at a high level ($\bar{x}$ = 3.87, *SD* = 0.70) followed by Academic Activities at a high level ($\bar{x}$ = 3.83, *SD* = 0.64), Art and Culture Preservation Activities were at a high level ($\bar{x}$ = 3.80, *SD* = 0.60), and Sports Activities were at a high level ($\bar{x}$ = 3.73, *SD* = 0.68)

3. Analysis of the level of learning outcomes according to the Thai Qualification Framework for Higher Education—A high average level of learning outcomes were achieved ($\bar{x}$ = 3.87, *SD* = 0.54). When considering the learning outcomes for each variable, all scores were at a high level. It was found that Ethics and Morals had the highest mean, ($\bar{x}$ = 4.00, *SD* = 0.65) followed by Interpersonal Skills and Responsibility ($\bar{x}$ = 3.86, *SD* = 0.67), Knowledge ($\bar{x}$ = 3.85, *SD* = 0.63), Cognitive Skills ($\bar{x}$ = 3.83, *SD* = 0.62) and Numerical Analysis, Communication, and Information Technology Skills ($\bar{x}$ = 3.72, *SD* = 0.70).

4. Analysis of the level of opinion about the fulfillment of student academic goals—It was found that the students' average overall level of student perception about their academic achievements was at a high level ($\bar{x}$ = 4.00, *SD* = 0.56). When considering fulfillment of academic goals for each sub-variable, it was found that Being Skillful had the highest mean ($\bar{x}$ = 4.05, *SD* = 0.83) followed by Participation ($\bar{x}$ = 4.04, *SD* = 0.73), Productivity Consideration ($\bar{x}$ = 3.99, *SD* = 0.76), Operational Excellence ($\bar{x}$ = 3.97, *SD* = 0.76), and the Pursuit of Operational Efficiency ($\bar{x}$ = 3.95, *SD* = 0.79).

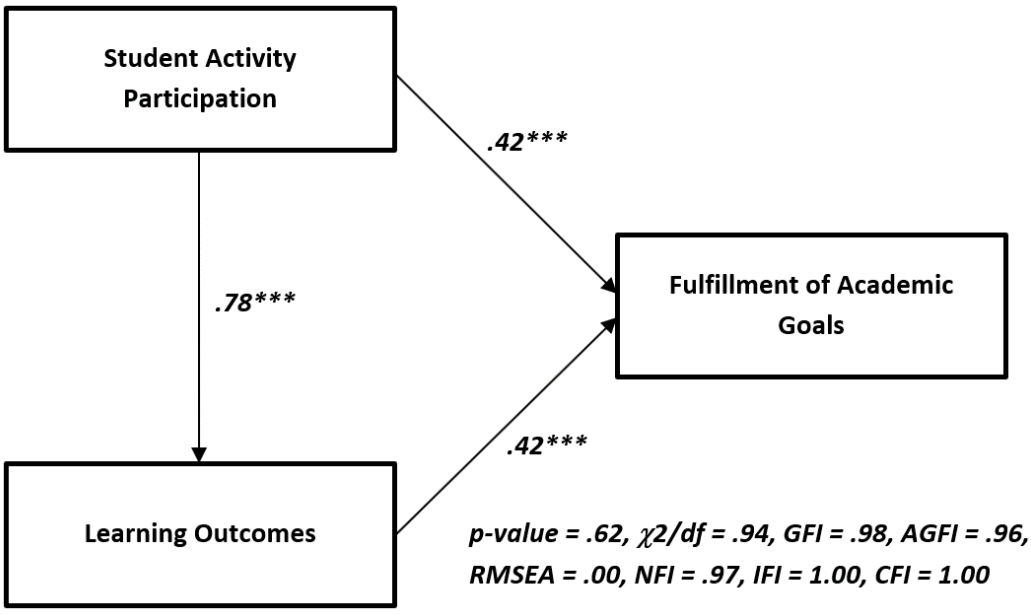
Confirmative Component Analysis

The measurement models of the first and second latent variables of student participation and their learning outcomes were consistent with the model and the data. The good fit showed that the latent variables of all observed variables were appropriate according to the criteria and for all conditions.

Model Consistency Analysis

Data analysis based on the first hypothesis involved an examination of the concordance between the hypothetical model and the empirical data collected. Analysis of the data dealt with the causal relationship between student participation in activities and the learning outcomes on the fulfillment of academic goals. Prior to adjusting the model, there were only two values, with probability values of .00 and Root Mean Square Errors of Approximation of .06, which failed to meet the criteria. However, after adjusting the model, it was found that the model was consistent with all the empirical data. The conformity index between the conceptual model and the empirical data in the form of probability (*p*-value) was .62, χ^2/df value was 0.94, the GFI was .98, the Adjusted Goodness-of-Fit index (AGFI) was .96, the Root Mean Square Error of Approximation (RMSEA) was .00, the Normed Fit Index (NFI) was .97, the Incremental Fit Index (IFI) was 1.00, and the Comparative Fit Index (CFI) was 1.00.

Figure 2 *Causal Structural Model of Student Participation in Student Activities, Learning Outcomes, and Fulfillment of Student Academic Goals*



Therefore, the results of the data analysis showed a consistency between the conceptual framework and the empirical data. This indicated a causal relationship between student participation in student activities and the learning outcomes on the fulfillment of student academic goals.

Hypothesis Testing

Data analysis based on the objectives and research Hypotheses 1, 2, 3, and 4 are shown in Figures 2 and Table 1.

Hypothesis 1 assessment involved a direct test of the influence of participation in student activities on the fulfillment of academic goals by international university students. The results showed that participation in student activities had a direct influence on fulfillment of their academic goals. The influential coefficient was .42 (Direct Effect = .42) and statistically significant at the .01 level; therefore, Hypothesis 1 was accepted.

Hypothesis 2 assessment involved a direct test of the influence between participation in student activities and the learning outcomes. It was found that participation in student activities had a direct influence on learning outcomes; the influential coefficient was .78 (DE = .78), which was statistically significant at the .01 level. Therefore, the second hypothesis was accepted.

Hypothesis 3 assessment involved a direct test of the influence of the learning outcomes, on fulfillment of student academic goals. It was found that the learning outcomes had a direct influence on fulfillment of these goals. The influential coefficient obtained was .42 (DE = .42), and it was also statistically significant at the .01 level. Thus, the third hypothesis was accepted.

Hypothesis 4 assessment involved an indirect test for the influence of participation in student activities through learning outcomes student fulfillment of their academic goals. It was found that participation in student activities had an indirect influence through learning outcomes on the fulfillment of their academic goals. The influential coefficient was .75 (Direct Effect = .42, Indirect Effect = .33, Total Effect = .75), and it was statistically significant at the .01 level. Therefore, Hypothesis 4 was accepted, which means learning outcomes function as mediating variables. Hence, changing these variables is important in moderating the influence of participation in student activities on fulfillment of their academic goals.

Table 1 *Analysis of Participation in Activities and Learning Outcomes on Fulfillment of Student Academic Goals Using Structural Equation Modeling*

Dependent Variables	Independent Variables	
	Student Activity Participation	Learning Outcomes according to the National Qualification Framework for Higher Education
Learning Outcomes according to the National Qualification Framework for Higher Education	Direct Effect = .76*** Indirect Effect = .00 Total Effect = .76***	-
Students fulfillment of Academic Goals	Direct Effect = .42*** Indirect Effect = .33*** Total Effect = .75***	Direct Effect = .42*** Indirect Effect = .00 Total Effect = .42***

*** Statistical significance level .001

Discussion

The purpose of this research was to analyze the relationship of direct and indirect influences on achievement of learning outcomes through participation in student activities consistent with the National Qualification Framework for Higher Education guidelines as they related to fulfillment of international students' academic goals.

The results showed that student participation variables had a direct influence on the fulfillment of students' academic goals. This finding was consistent with a study by Nhusawi (2010), who found that student activities were essential and necessary in the development of qualifications and competencies in students. As a result, students may be equipped with knowledge, abilities, and judgment; they will also sacrifice for the public good, and demonstrate morality. In other words, they will be successful in learning, and be intellectually, physically, and socially able to serve future generations. Thoumthongthawin (2009) found that students who participated in student activities organized by higher education institutions had opportunities to collaborate in academic support activities that benefited their education. Participation in such activities encourages students to think creatively in ways that bring success in student life. This can also be applied to their future work practices, and at the same time benefit society and the community.

The student participation variables investigated directly influenced learning outcomes according to the National Qualification Framework for Higher Education. The results were found to be consistent with opinions expressed by Payubon (2002). The general purpose of student activities is to instill morality in students, promote unity among students, and enhance their experiences in order to cultivate and maintain culture, traditions, and the national identity. In addition, extracurricular activities may promote health and personality development, as well as encourage students to serve the public and bolster the reputation and prestige of the university system. In line with the research of Milaehman and her team (2002), student activities should be aimed at developing graduates with desirable characteristics, and providing them with academic quality and competence. Thai educational institutions should encourage and support participation in student activities to develop desirable characteristics in graduates.

This might be achieved and the quality of education improved by setting goals and guidelines for all Faculties to adopt student activities in their curricular operations. Organizing teaching and learning processes and extracurricular activities develops students to become graduates who are smart, good, and happy people. This can be facilitated by focusing on student activities in order to develop the students physically, emotionally, socially, and intellectually. According to Na Ayudhya (2002), participation in student activities represents an improvement in the quality of student life, both physically and mentally, by focusing on promoting their learning, social life, and welfare. This helps students to be ready for their studies and to adopt key principles that are foundational to becoming complete people.

The learning outcome variables specified by the National Qualification Framework for Higher Education have a direct influence on the fulfillment of academic goals by international university

students. This is consistent with the study of Vinijkul (2015), who found that the learning environment was positively correlated with competence. In another study, the factors influencing nursing students the most were teaching and learning management factors, followed by their relationships with friends (Sakulpanyawat & Maluleem, 2009). Further, a research study conducted by Chantra et al. (2016) found that the factors which affected the enjoyment of learning were largely correlated with desirable characteristics of graduates, followed by their learning style, the learning environment, and their relationships with their classmates.

Student participation variables had a direct influence on international university students' academic goal fulfillment, and had an indirect influence through learning outcomes on goal fulfillment. . This is consistent with a study by Sangkapan et al. (2013), who found that the teaching and learning process adopted by teachers to achieve learning outcomes influenced many related factors, such as student learning behavior and the classroom environment, and had both direct and indirect influences on fulfillment of students' academic goals. Moreover, Panomrit et al. (2011) found that students' self-directed learning affected their learning success.

Conclusions

Participation in student activities directly influenced learning outcomes, it also directly and indirectly influenced the fulfillment of students' academic goals. Moreover, these learning outcomes also directly influenced student fulfillment of academic goals. Therefore, the empirical data showed that the results were consistent with past research, where it was found that participation in student activities and learning outcomes influenced student success or achievement. Therefore, those associated in student activities and teaching management, who are student activities officers and instructors, should encourage students to participate in all types of student activities: (sports, activities for preserving arts and culture, academic activities, and service activities). These activities will help students to achieve the five learning outcomes, namely (a) ethics and morals; b) knowledge; c) cognitive skills; d) interpersonal skills and responsibility; and e) numerical analysis, communication, and information technology skills. They will also improve their physical and mental capacities, enhance development of good personalities, encourage students to learn how to work with others, and develop good leadership traits that will contribute to their level of success and affect their future careers.

Practical Suggestions

The following recommendations follow from our research results:

1. Universities or educational institutions should arrange for students to participate in student activities, so that they will have the opportunity to develop skills and experiences that are beneficial to themselves and society.

2. Since learning outcomes per the National Qualification Framework for Higher Education affects students' future success, all programs should be encouraged to adopt and support such learning outcomes.

Suggestions for Future Research

The design features adopted in this study had various limitations as follows:

1. Data collection from one international university limited the applicability of the findings. Therefore, future studies should collect data from international university students from other institutions, or collect data from throughout the country, to enable accurate and reliable data analysis. Then any generalizations made would be more reliable.

2. There were three variables used in this research; participation in student activities, learning outcomes per the National Qualification Framework for Higher Education, and fulfillment of the academic goals of international university students. In future research, other variables might be included that might influence international university students' achievement of their academic goals. This would ensure maximum benefits for students in the future. These variables might include educational achievement and learning outcomes, to name just two.

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